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10/591,905	11/06/2006	Makiko Kitazoe	029567-00010	5377
4372	7590	01/19/2012		
ARENT FOX LLP 1050 CONNECTICUT AVENUE, N.W. SUITE 400 WASHINGTON, DC 20036			EXAMINER CHEN, KEATH T	
			ART UNIT	PAPER NUMBER
			1716	
			NOTIFICATION DATE	DELIVERY MODE
			01/19/2012	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

DCIPDocket@arentfox.com  
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## DETAILED ACTION

### *Response to Amendment*

Applicants submission of argument, filed on 01/12/2012, in response to the rejection of claims 1-3, 6-9, and 20 of the final office action, mailed on 09/16/2011, by argument only is addressed below.

### *Response to Arguments*

Applicant's arguments filed 01/12/2012 have been fully considered but they are not persuasive.

1. Applicants argue that the office implicitly admits that none of the applied references disclosed "the constant-voltage bias voltage power supply connected to the heating power supply circuitry to apply a bias voltage across two terminals" and this limitation is supported at page 14, lines 23-25 "the constant-voltage power supply 8 can control ... a voltage across the terminals of the heating power supply", see the 1<sup>st</sup> complete paragraph of page 2 to the 1<sup>st</sup> complete paragraph of page 3 and the last paragraph of page 4.

This argument is found not persuasive.

The examiner did not admit that none of the applied references disclosed the newly added limitations. The examiner pointed out the Specification disclosed that is considered a result of **applying bias voltage at any point of the circuit** ([0087] and [0090]) and the combined references teaches the claim under this interpretation:

**"to have applied either a cathodic or anodic bias voltage, as taught by '201 and '803, respectively, to the hot element 3 in the apparatus of '756, and**

furthermore to have adopted the bias voltage switch with constant voltage supplies (the limitations of 1B and 1C) as taught in Fig. 1 of '754 to switch the polarity as needed for switching the polarity for '201 and '803, for the purpose of inhibiting corrosion as taught in '756 (col. 6, lines 19-26) and '201 (col. 1, line 36) and '803 (col. 4, lines 33-37) and to provide polarity switch capability as taught by '868 (col. 8, lines 37-40 and col. 9, lines 21-26)."

On the other hand, if Applicants argue that the claim limitation is "constant-voltage bias voltage power supply **connected** to the ... two terminals" Fig. 1 of instant Application clearly shows the constant voltage power supply connected at an unspecified point in the power feed circuit, not **connected** across the two terminals 6a and 6b. A new matter rejection is proper if Applicants insist this claim interpretation.

2. Applicants argue that changing the polarity of the bias voltage "based on a kind of the cleaning gas" is not an intended use, does constitute a structural limitation because the resulting bias voltage would be different depending on the cleaning gas, see the last complete paragraph of page 3 to the 1<sup>st</sup> complete paragraph of page 4.

This argument is found not persuasive.

The examiner maintains that switching the polarity is taught by the combined apparatus and switch to cathodic or anodic "based on a kind of the cleaning gas" does not add structure limitations. The gas is intended use, switching based on the gas type is an intended use an any person of ordinary skill in the art would have been able to switch the polarity depending on the kind of gas.

3. Applicants argue that Harris '803 improving corrosion resistance as a result of a completed electrochemical process, does not teach applying a bias voltage to provide corrosion resistance, see the 1<sup>st</sup> paragraph of page 5.

This argument is found not persuasive.

The addition of bias voltage is taught by '201:

'201 teaches **cathodic protection** (col. 1, line 36, see also lines 51-64) cathodic protection prevents corrosion by introducing an electrical current from **external sources** to counteract the normal electrical chemical corrosion reactions ...

'803 teaches that corrosion resistance during **anodic bias at certain species** (col. 4, lines 33-37).

Note '803 teaching is also "based on a kind of the cleaning gas".

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KEATH CHEN whose telephone number is (571)270-1870. The examiner can normally be reached on 6:30AM-3 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on 571-272-1435. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KEATH T CHEN/  
Primary Examiner, Art Unit 1716